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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,464	06/18/2002	Thomas Huenig	ALBRE 23	3876

23599 7590 08/07/2006

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EXAMINER	
OUSPENSKI, ILIA I	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,464	HUENIG, THOMAS	
	Examiner	Art Unit	
	ILIA OUSPENSKI	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2006 and 30 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-15 and 19-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-15 and 19-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 05/30/2006 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/230/2006 has been entered.

2. Applicant's amendment/remarks, filed 05/30/2006 and 02/23/2006, are acknowledged.

Claims 1 – 11and 16 – 18 have been cancelled previously.
Claim 25 has been added.

Claims 12 – 15 and 19 – 25 are pending.

3. This Office Action will be in response to applicant's amendment and arguments, filed 05/30/2006 and 02/23/2006.

The rejections of record can be found in the previous Office Action, mailed 11/25/2005.

The text of those sections of Title 35 USC not included in this Action can be found in a prior Office Action.

It is noted that New Grounds of Rejection are set forth herein.

4. Claim 12 is rejected under **35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is indefinite in the recitation of "said antibody" in part 12 a), because the recitation lacks proper antecedent basis in the preceding part of the claim, which recites "monoclonal antibodies" in plural.

Therefore, one of ordinary skill in the art would not be reasonably apprised of the metes and bounds of the claimed invention.

Applicant is reminded that any amendment must point to a basis in the specification so as not to add new matter. See MPEP 714.02 and 2163.06.

5. The following is a quotation of the **first paragraph of 35 U.S.C. 112**:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 12 – 15 and 19 – 25 are rejected under **35 U.S.C. 112, first paragraph**, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention.

The specification does not enable one of skill in the art to practice the invention as claimed without undue experimentation. Factors to be considered in determining whether undue experimentation is required to practice the claimed invention are summarized in In re Wands (858 F2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)). The factors most relevant to this rejection are the scope of the claim, the amount of direction or guidance provided, limited working examples, the unpredictability in the art and the amount of experimentation required to enable one of skill in the art to practice the claimed invention.

The claims are directed to methods of treatment of viral infections in patients, comprising administering anti-CD28 antibodies which directly stimulate T lymphocytes (i.e. antibodies known in the art as "superagonistic" antibodies). However, the specification does not provide a sufficient enabling description of the claimed methods.

A skilled artisan is not enabled to administer a superagonist anti-CD28 antibody to humans, because the antibody causes severe life-threatening reactions (Sheridan C., 2006, Nature Biotechnology, 24: 475 – 476). "An interim report, published on April 5, 2006, by the UK drug regulator, the London-based Medicines and Healthcare Products Regulatory Agency (MHRA), identified the antibody, TGN1412 [a superagonist anti-CD28 antibody], as being the cause of the life-threatening reactions that occurred in six healthy volunteers, who received the drug on March 13 at a clinical trials unit based at Northwick Park Hospital in Harrow, in northwest London. It ruled out any other confounding factors, such as contamination, manufacturing problems or handling errors. All six volunteers experienced episodes of cytokine release syndrome, a type of severe systemic inflammatory response." (Ibid., page 475, first column).

Without sufficient guidance, safe mode of administration of superagonist anti-CD28 antibodies to humans is unpredictable; thus the experimentation left to those skilled in the art, is unnecessarily, and improperly, extensive and undue.

7. Claims 12, 15, 19 and 21 – 24 stand rejected, and newly added claim 25 is rejected, under **35 U.S.C. 102(e)** as being anticipated by June et al. (US Patent 6,534,055; see entire document).

Applicant's arguments have been fully considered but have not been found convincing.

Applicant argues that the instant claims, as amended on 02/23/2006, are limited to methods utilizing antibodies to CD28 which stimulate T cells without stimulation of CD3, and that June et al. do not teach such methods.

This has not been found persuasive, because June et al. teach e.g. that "a population of $CD4^+$ T cells can be stimulated to proliferate with an anti-CD28 antibody directed to the CD28 molecule at the surface of the cell" (column 2 lines 25 – 29).

Therefore, the rejection of record is maintained for the reasons of record, as it applies to the amended and newly added claims. The rejection or record is incorporated by reference herein, as if reiterated in full.

8. Claims 12 – 14 and 19 – 24 stand rejected, and newly added claim 25 is rejected, under **35 U.S.C. 103(a)** as being unpatentable over June et al. (US Patent 6,534,055; see entire document) in view of Hennge et al. (of record: reference No. 7 on IDS; see entire document).

Applicant's arguments have been fully considered but have not been found convincing. Applicant argues that the teachings of Hengge et al. do not complement the deficiency of June et al. in making obvious the present invention.

Applicant's argument has been addressed in section 7 above.

Therefore, the rejection of record is maintained for the reasons of record, as it applies to the amended and newly added claims. The rejection or record is incorporated by reference herein, as if reiterated in full.

9. Conclusion: no claim is allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ILIA OUSPENSKI whose telephone number is 571-272-2920. The examiner can normally be reached on Monday-Friday 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ILIA OUSPENSKI, Ph.D.
Patent Examiner
Art Unit 1644

PHILLIP GAMBEL, PH.D. JD
PRIMARY EXAMINER

TC 1600
8/3/06

August 3, 2006